PRESSURE REDUCING VALVE

Model IR-220-XZ

The BERMAD Pressure Reducing Valve is a hydraulically operated, diaphragm actuated control valve that reduces higher upstream pressure to lower constant downstream pressure and opens fully upon line pressure drop.

Features & Benefits

- Line Pressure Driven, Hydraulically Controlled
  - Protects downstream systems
  - Opens fully upon line pressure drop
- Smooth valve opening and closing
  - Accurate and stable regulation
  - Low operating pressure requirements
- Plastic Globe Hydro-Efficient Valve
  - Unobstructed flow path
  - Single moving part
  - High flow capacity
  - Highly durable, chemical and cavitation resistant
- Unitized Flexible Diaphragm and Guided Plug
  - Excellent low flow regulation performance
  - Prevents diaphragm erosion and distortion
- Fully Supported & Balanced Diaphragm
  - Requires low actuation pressure
- User-Friendly Design
  - Simple in-line inspection and service

Typical Applications

- Drip Systems
- Pressure Reducing Stations
- Systems Subject to Varying Supply Pressure
- Landscape
- Energy Saving Irrigation Systems

[1] BERMAD Model IR-220-XZ establishes reduced pressure zone, protecting laterals and distribution line.
[2] BERMAD Kinetic Air Valve Model IR-K10
[3] BERMAD Combination Air Valve Model IR-C10

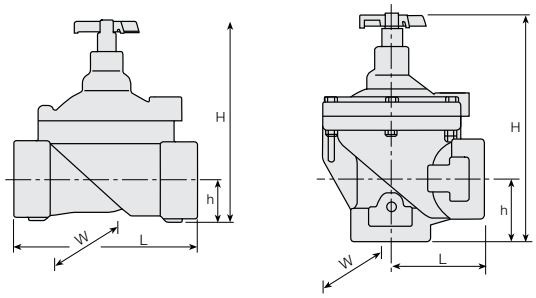
All images in this catalog are for illustration only

Technical Specifications

Dimensions and Weights

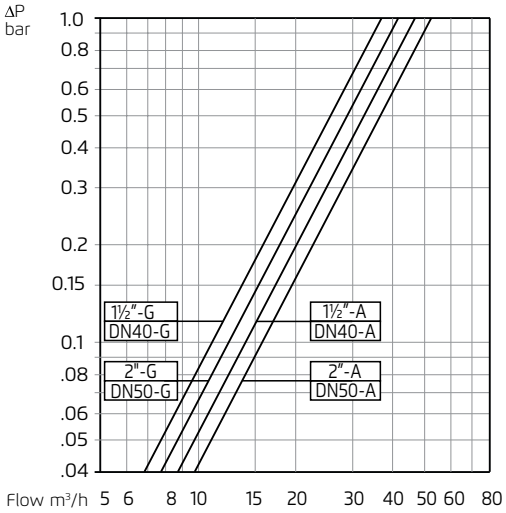
Pattern		Globe		Angle	
Size	DN	40	50	40	50
	Inch	1½	2	1½	2
L	mm	160	170	80	85
H	mm	180	190	190	210
W	mm	125	125	125	125
h	mm	35	38	40	60
Weight	Kg	1	1.1	0.95	0.91

Note: For full technical details, refer to Engineering Section.



C = Half of H

Flow Chart



		G	A	G	A
Size	DN	40	40	50	50
	Inch	1½"	1½"	2"	2"
Flow Coefficient	KV	37	47	41	52

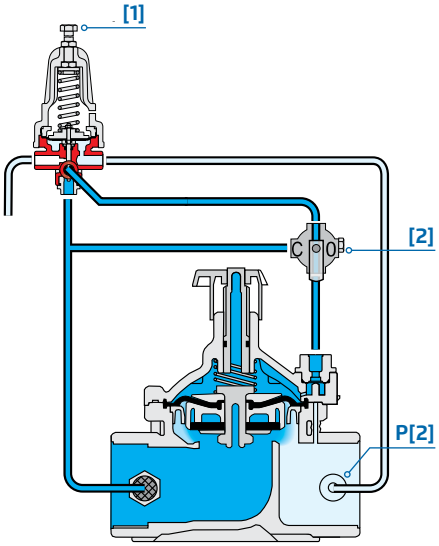
Valve flow coefficient, Kv or Cv $\Delta P = \left(\frac{Q}{Kv;\ Cv}\right)^2$

Where:
Kv = Valve flow coefficient
Cv = Valve flow coefficient (flow in gpm at Diff. Press. 1 psi)
Q = Flow rate (m³/h; gpm)
P = Differential pressure (bar; psi)
Cv = 1.155 Kv

Technical Data

Sizes: 1½-2"; DN40-50
Patterns: Globe: 1½ & 2"; DN40 & 50
Angle: 1½ & 2"; DN40 & 50
End Connections: Female Threads BSP; NPT
Pressure Rating: 10 bar; 145 psi
Operating Pressure Range: 0.5-10 bar; 7-145 psi
Setting Range: 0.5-1.7 bar; 7-25 psi

Operation



The Pressure Reducing Pilot **[1]** commands the main Valve to throttle closed should Downstream Pressure [P2] rise above pilot setting, and to open fully when it drops below pilot setting. The Manual Selector **[2]** enables local manual closing.

Standard Materials:

Body, Cover and Plug: Reinforced Nylon
Diaphragm: NR
Seals: NBR [Buna–N] and NR
Spring: Stainless Steel
Cover Bolts: Stainless Steel
Control Accessories: Plastic
Tubing and Fittings: Plastic